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Tropical Ecology and Society
Reconciliating Conservation and Sustainable Use of Biodiversity

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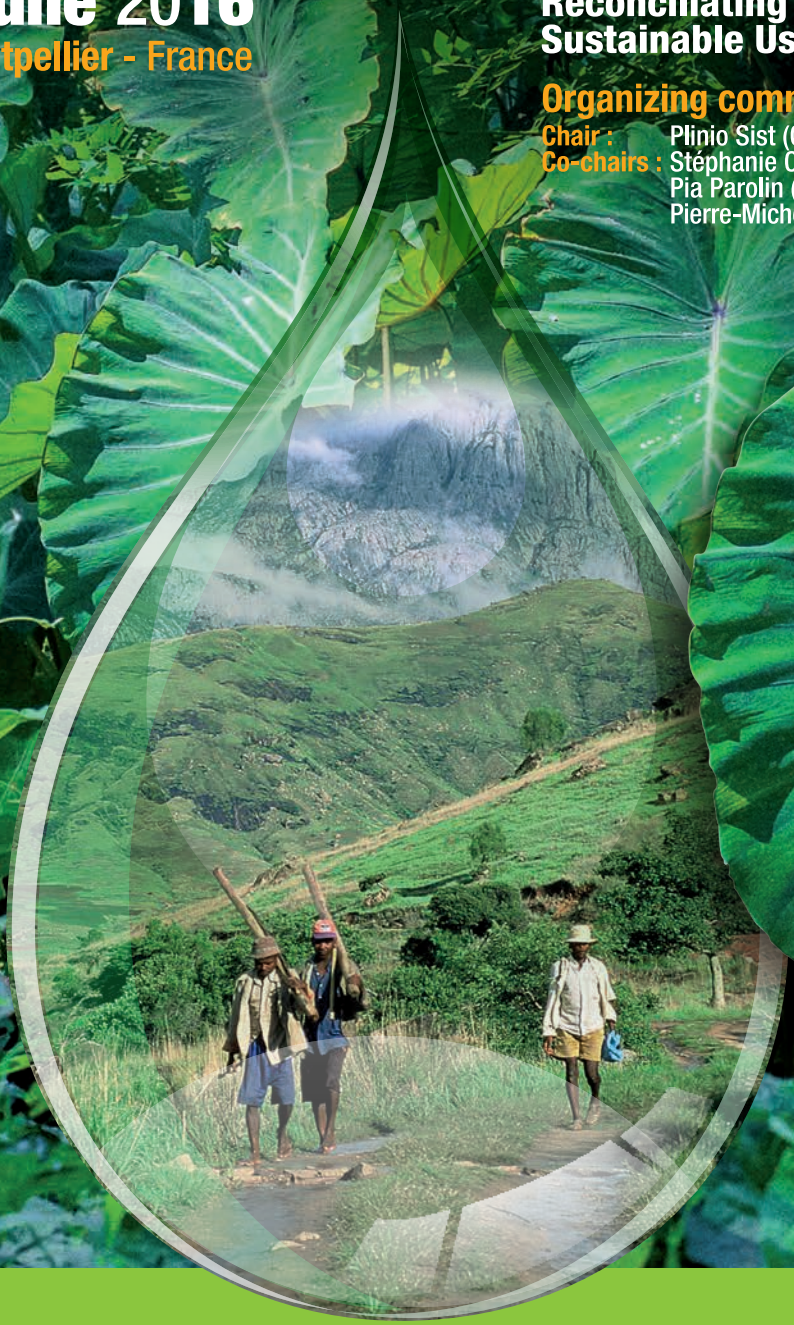

PROGRAM & ABSTRACTS

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O32-07 – S32 *Europe's role in driving the future of tropical forested landscapes*
Wednesday 22 June / 14:30-17:30 – Pasteur

No net loss of biodiversity? Mitigating development impacts and the future of tropical forested landscapes

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With biodiversity being lost at unprecedented rates, mitigating the impacts of development projects is a growing concern. International best practice indicates that projects located in natural habitats must achieve no net loss of biodiversity, or preferably a net gain. To do so, when development projects generate impacts on biodiversity that could not be sufficiently avoided or reduced, offsets must be designed and implemented to effectively and fully compensate for the residual loss of biodiversity, by generating measurable conservation gains elsewhere.
There are considerable technical and organizational challenges to designing and implementing biodiversity offsets, which must also respect the legal and customary rights of local populations. Offset frameworks have been put in place in several countries worldwide but, in many circumstances, it is financial institutions and multinational companies that require these approaches as part of their risk management strategies. As such, they represent an important external influence on the future of tropical forested landscapes. A further challenge, however, is that developing countries, eager to access their natural resources, don't all share this ambition.
We illustrate this with mining development in the tropical forest landscape which straddles the borders of Cameroon, Gabon and the Republic of Congo. Conservationists fear that the infrastructure being built to service an emerging iron ore province will reduce a large intact forest landscape to a mosaic of isolated protected areas no longer fit to conserve its mega-fauna or maintain large scale ecosystem processes. We use companion modelling techniques to build a model of the socio-ecological system, and develop future scenarios. In doing so, we map the role of various actors in making these futures possible.
A key conclusion is that managing the impacts of mining development requires a strategic and multi-sectorial landscape-level approach, rather than dealing with each separate project sequentially. We identify key enabling conditions for this to happen, including science-based knowledge and tools, and more effective institutions. These lessons are applicable to other large intact forest landscapes under threat from infrastructure and industrial development, and we discuss the role of international best practices in driving the future of these tropical forested landscapes.

O32-08 – S32 *Europe's role in driving the future of tropical forested landscapes*
Wednesday 22 June / 14:30-17:30 – Pasteur

The role of commodities in tropical deforestation

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In recent decades, the majority of tropical deforestation has been caused by commercial actors growing commodity crops. Popular discourse emphasizes a large number of agricultural commodities as well as shifting cultivation and mining as being linked to high levels of deforestation. While many of these are historically or regionally influential, recent studies show that just four commodities: beef, soy, palm oil, and wood products cause the majority of global deforestation. Furthermore, the contribution of beef, both to deforestation and to global warming emissions far outweighs the contribution of the other three.
While some governments, such as Brazil, have taken steps to combat the commodity-driven deforestation, there is evidence to suggest that some of the reduction in deforestation has leaked to other ecosystems and other countries. Transnational corporations that deal in the key commodities are the entities that are most able to stem the tide of deforestation caused by global agriculture.